INTERNATIONAL UNIVERSTY OF AFRICA

KHARTOUM, SUDAN

A THESIS FOR Ph. D DEGREE SUBMITTED TO THE DEANSHIP OF GRADUATE STUDIES, SCIENTIFIC RESEARCH AND PUBLICATION

TITLED:

"ANALYSIS OF SOCIOECONOMIC IMPACTS OF FLASH FLOODS OVER ADAMAWA STATE, NIGERIA (2004 - 2016)"

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YUSUF UMAR AHMAD
(B. Sc., M. Sc. Geography, Bayero University Kano – Nigeria)

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DECLARATION

I hereby declare that this thesis titld ***"Analysis of Socioeconomic Impacts of Flooding on the Communities along the Floodplains of River Benue in Adamawa State, Nigeria***" has been written by me and that is a record of my own research work. It has not been in anyway accepted to my knowledge in a previous application for higher degree in any institution. All the sources of information are specifically acknowledged by means of reference

CERTIFICATION

I certify that this thesis is written by **Yusuf Umar Ahmad** in partial fulfillment for the award of the degree of Doctor of Philosophy in Geography in the Department of Geography, International University of Africa, Khartoum - Sudan.

Professor Abdel-Malik G Seed	.....	…….
(Supervisor)	Date	Signature
……..	……..	…….
(Internal Examiner)	Date	Signature
……	……	…….
(External Supervisor)	Date	Signature

DEDICATION

I dedicate this work to my parents late Mal. Umaru Mai Shanu (Kawu) and Hajiya Halima Musa (Hajiya Adda) for their parental care, counseling, moral upbringing, prayers as well as financial supports offered to me since my early school days up to the time I found myself within the four walls of University. May Allah (SWT) reward the abundantly and forgive their shortcomings, *Ameen.*

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Yusuf Umar Ahmad.

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Abstract

Flood disasters remain the common and widespread of all natural hazards in the world and in the floodplains of Adamawa State in particular. The consequences flooding are so enormous both on physical and socioeconomic well-being of the inhabitants. In the study area for example, over 302,200 people were reported to have been affected with many lives lost due to flood menace in recent times. Seven local government areas out of the 21 were purposively selected, and from each, four communities were randomly selected as the sample for the study. 57 questionnaires were administered to each of these communities. Therefore, a total of 400 questionnaires were administered using Singha, (2002) formula, but 383 were retrieved. In addition, Focus Group Discussions (FGD) of 7-10 participants aged between 25 and 65 years was conducted in five communities randomly selected. The FGD interaction took place in vernacular (Hausa language) which was the second lingua franker of most of the communities and then later translated into English language. Also, other sources of secondary data include records from the Adamawa State Emergency Management Agency (ADSEMA), National Environmental Management Agency (NEMA), Federal Ministry of Environment (FME) and State Ministry of Environment (SME). SPSS 16.0 and Microsoft Excel 2010 soft-wares were used in coding and analyzing the data in form of frequency, percentages, correlation, charts and graphs in order to make meaning out of it. Arch view GIS 3.2a was also used in the overlay analysis. The findings of research indicate that torrential rainfall cause by climate change was the major factor responsible for the flood disaster in the study area especially that the mean annual rainfall in the years 2009, 2012, 2013 and 2014 ranged between 88.4mm to 90.4mm; which was higher than what was obtained in the previous decades. However, this is connected with global warming which is responsible for the extreme storms in most of the Sub Saharan African countries. Similarly, the results show how floods strangulated socioeconomic activities of the affected communities in terms of displacement, ill health and sanitary, loss of farmlands/farm produce, destruction of houses, etc. The result of the product moment correlation on the other hand shows that there is correlation between rainfall intensity and flooding (r=1.6622). Similarly, there is correlation between torrential rainfall and flooding and between topography and flooding which were 0.16929 and 0.9944 respectively. The implication of the findings is that proactive measures should be taken to with view to checkmating flood disasters, so that the area will not continue to suffer from the challenges. Finally, based on the findings of the research, recommendations were made as how flood disaster will be ameliorated.

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